Substance Registry System

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The U.S. Environmental Protection Agency (U.S. EPA) is using its Substance Registry System (SRS) to improve the ability of states, tribes, and other federal agencies to communicate about chemicals and other substances. One development is the introduction of Web services to enable states and Indian tribes to pull the most current chemical data from SRS, improving the accuracy of the environmental data they exchange with the U.S. EPA. On the federal level, the SRS has been selected as the standard nomenclature source for non-drug chemicals as part of the Consolidated Health Informatics (CHI) effort, an E-Government Initiative.

The U.S. EPA created the SRS to catalog its diverse holdings of chemicals and other substances. Nearly every program at the U.S. EPA manages or tracks chemicals. When they were created, each of these programs had to determine the names to use for each chemical. As each chemical can have a myriad of different synonyms, there are many names used at the U.S. EPA for each chemical. Outside of chemists, it is difficult to know, for example, that toluene is the same as methyl benzene or phenyl methane. The SRS includes all the synonyms used at the U.S. EPA for each chemical, the program that tracks or regulates it, and the particular synonym used by that program. The SRS also provides links to internal and external sites for additional information, such as toxicological fact sheets prepared by the World Health Organization (WHO).

At the request of some state partners, the U.S. EPA is developing Web services to enable states and tribes to dynamically pull chemical data from the SRS. Ultimately, states and tribes will be able to store their chemical data in the SRS rather than managing their own system, thus saving time and resources. The SRS is also poised to facilitate the integration of chemical data at the federal level. As the CHI standard for non-drug chemicals, the SRS either will inventory the chemicals and other substances tracked or regulated by other federal agencies or create dynamic links with SRS-like systems at other agencies. It will be possible, therefore, to utilize the SRS to find chemical data across the federal government. This will make it possible to obtain related environmental or health data for that chemical. Agencies also will benefit because their staff will quickly and easily be able to find relevant information about a chemical, thus improving the decision-making process.